LISTING OF CLAIMS:

The present listing of claims replaces all previous versions of the listing of claims.

Claims 1-21 (Canceled)

22. (New) An output characteristic switching method for switching an output characteristic of a sensor device, the sensor device receiving a power supply voltage and outputting a detecting signal during a first sensing interval according to one of a first output characteristic and a second output characteristic, the method comprising:

switching a function of a terminal of the sensor device from receiving the power supply voltage and outputting the detecting signal to inputting an external command signal during an input interval; and

switching the output characteristics of the sensor device to an other of the first output characteristic and the second output characteristic during a second sensing interval based on the external command signal received through the terminal during the input interval.

23. (New) The output characteristic switching method of the sensor device according to claim 22, wherein said external command signal is a binary coded digital signal.

24. (New) An output characteristic switching method for switching between a first output characteristic and a second output characteristic of a sensor device having a sensor element and a terminal capable of receiving an input and generating an output during given time intervals, the method comprising:

providing a power supply voltage input to the terminal and outputting a sensor signal associated with one of the first output characteristic and the second output characteristic from the terminal during a first time interval, the sensor signal associated with values detected by the sensing element, the sensor signal provided by changes in an electric current component of the power supply voltage causing changes in the power supply voltage provided to the terminal;

interrupting the outputting of the sensor signal at the start of a second interval signaled by applying a constant value of the power supply voltage to the terminal regardless of the changes in the electric current component, and thereby switching the sensor device to an input ready mode; and

receiving an external command input at the terminal during a third interval, the external command input indicating another of the first output characteristic and the second output characteristic for outputting the sensor signal.

25. (New) The method of claim 24, wherein the external command input includes a binary coded signal indicating a binary code associated with the another of the first output characteristic and the second output characteristic.

26. (New) The method of claim 24, further comprising:

switching the sensor device such that the outputting the sensor signal is conducted according to the other of the first output characteristic and the second output characteristic.

27. (New) The method of claim 26, wherein the first output characteristic and the second output characteristic include a first range and a second range associated with the values detected by the sensing element.

28. (New) The method of claim 26, wherein the first output characteristic and the second output characteristic include a first range and a second range associated with the values detected by the sensing element; and the method further comprises:

adjusting a range control device associated with the sensor device to output the other of the first output characteristic and the second output characteristic.

29. (New) A switching method for switching between a first output characteristic and a second output characteristic of a sensor device having a sensor element and a terminal capable of receiving an input and generating an output during given time intervals, the method comprising:

applying a voltage input to the terminal and outputting a signal associated with one of the first output characteristic and the second output characteristic from the terminal, the signal based on values generated by the sensing element according to a parameter associated with the one of the first output characteristic and the second output characteristic, the values controlling a level of the voltage input at the terminal;

interrupting the outputting of the signal by dislocating the outputting the signal with a constant value of the voltage at the terminal to thereby switch the sensor device to an input ready mode; and

receiving an external command input at the terminal while the sensor device is switched to the input ready mode, the external command input indicating another of the first output characteristic and the second output characteristic for outputting the signal.

30. (New) The method of claim 29, wherein the values cause changes in an electric current component of the voltage to thereby cause changes in the voltage provided to the terminal, and the voltage provided at the terminal corresponds to the signal.

31. (New) The method of claim 29, wherein:

the values generated by the sensing element correspond to changes in an electric current component associated with the voltage; and

the dislocating the outputting the signal with a constant value of the voltage includes applying a constant value of the voltage to the terminal regardless of the changes in the electric current components.

32. (New) The method of claim 29, wherein the external command input includes a binary coded signal indicating a binary code associated with the another of the first output characteristic and the second output characteristic.

33. (New) The method of claim 29, further comprising:

switching the sensor device such that the outputting the signal is conducted according to the other of the first output characteristic and the second output characteristic.

34. (New) The method of claim 29, wherein the first output characteristic and the second output characteristic include a first range and a second range associated with the values detected by the sensing element.

35. (New) The method of claim 29, wherein the first output characteristic and the second output characteristic include a first range and a second range associated with the values detected by the sensing element; and

the method further comprises adjusting a range control device associated with the sensor device to output the other of the first output characteristic and the second output characteristic.